

# Health study leaves some unanswered questions

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EAST LIVERPOOL - The city health board received some good and some not-so-good news Thursday in regard to a recent health study involving area children.

The most disturbing news, perhaps, was that hair samples of local children showed levels of manganese three times greater than children living near an Oklahoma hazardous waste site.

Reporting on the pilot research study by the University of Cincinnati, Professor Erin Haynes told the board that blood levels of cadmium and mercury in the children tested were too low to detect, showing identical levels to those of a national study conducted on children between 6 and 11. The local study involved 106 children between 4 and 17 years old, with the average age 10.

Blood levels of lead in local children were also within safe levels, again showing identical levels as those in national studies at 0.99 micrograms per deciliter.

In blood tests for manganese, local children showed an average of 9.89 micrograms per deciliter, and although national studies do not include a measure of blood manganese, Haynes said the local level compared to those found in children living near a manganese processing plant in Mexico, where the average was 9.5 micrograms per deciliter.

Again, national studies do not include a measure of hair manganese, leading researchers to compare local children's hair levels of manganese results with those in Tar Creek, Okla., where the level was 471 nanograms per gram, compared to 1,419.23 ng/g for the local children.

What do these results mean?

According to Haynes, they leave many questions unanswered and a larger study is needed to determine whether local levels are related to poor health outcomes.

To that end, she said the University of Cincinnati has been awarded a two-year grant of \$275,000 annually to conduct the more in-depth study which will continue to focus on children, including how chronic exposure can affect them over a long time.

The goal is to have 150 children who will undergo a complete battery of tests. More in-depth questions on socio-economic and health history issues will be asked of the children's parents in the extended study.

A community meeting was also held Thursday night to disseminate information on the study results.